Food and Agriculture Organization of the United Nations

Procedure for processing and preserving sponge samples

For genetics, metabolomics, and taxonomy on commercial vessels

PREPROCESSING CATCH:

1. Take pictures of unsorted sponge catch. A label containing the mission and tow ID should be included, as well as a ruler to judge scale. Wear thick rubber gloves when handling the sponges to avoid being pierced by their small skeletal structures (spicules).

2. Sort the catch and pool similar-looking sponges (species and/or morphotypes) into groups. Place on tray.

3. Add label beside each sponge species/ morphotype group that will uniquely identify them. Label should include the mission and tow ID, as well as general identifier for the different sponge species/morphotype groups (e.g. Sponge 1, Sponge 2, etc.). See example image below. A ruler should be added to tray for scale. Take pictures of sorted catch with labels and ruler for scale.

Unsorted sponge catch

Sorted sponge catch

SponGES

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COLLECTING WEIGHT DATA:

1. Count and weigh all individuals from each species/morphotype group, and extrapolate values to estimate the total catch of sponges in the tow. Note that if sponge catch is very large (> 100 kg), a portion of the catch can be weighed prior to sorting by species/morphotype and extrapolated to estimate the total catch in the tow.

DETAILED PHOTO COLLECTION:

1. Select from each species/morphotype group a whole individual(s) that appears in good condition.

2. Take close-up images of specimen. Include a label and ruler for scale. See example image below.

Close-up of sponge with at-sea identification and scale

PRESERVATION OF SAMPLES FOR GENETICS/ METABOLOMICS/TAXONOMY:

1. Take a representative of each species/morphotype, the associated label, and place in plastic bag and freeze in a -20˚ freezer (preferred). If the sponge is too large to freeze the entire specimen, preserve only a slice or portion, making sure to get the exterior and inner tissue of sponge.

Further assistance with identification

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Source

FAO. 2016. *Marine species biological data collection manual.* An illustrated manual for collecting biological data at sea. vi + 53 pp.
Images courtesy of J. Xavier (UiB)